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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/788,642	02/27/2004	Yefim Sukhman	483018016US1	7240

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EXAMINER

FLORES RUIZ, DELMA R

ART UNIT	PAPER NUMBER
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2828

DATE MAILED: 12/04/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/788,642

Applicant(s)

SUKHMAN ET AL.

Examiner

Delma R. Flores Ruiz

Art Unit

2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 August 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

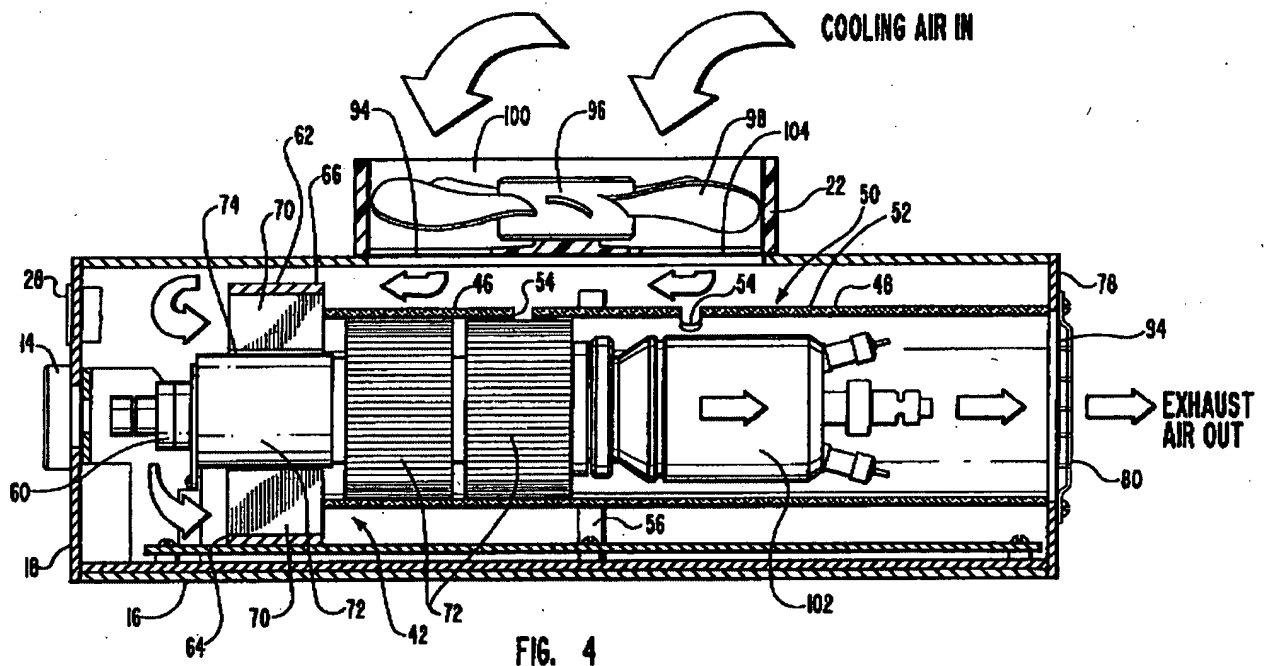
(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 – 3, 5 – 10, 12 – 18 and 20 – 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Ostler (5,550,853).

Regarding claim 1, Ostler discloses in Figure 4, a power source (Column 4, Lines 54 – 56, the reference said don't show the power source but use at least one power source, but in Figure 2, the reference talk about a power plug and if the apparatus have a power plug need a power source and the power source is located along a longitudinal axis) for causing the laser source to generate a laser beam (see Fig. 4); and a fan (see Fig. 4, Character 100) for generating an air flow; wherein the laser source and the power source each have an exterior surface; and wherein the laser source and the power source are arranged in an

end-to-end series relation along a longitudinal axis such that the fan directs the air flow generally in the direction of the longitudinal axis to pass first substantially adjacent to the exterior surface of the laser source for the cooling thereof, and then to pass substantially adjacent to the exterior surface of the power source for subsequent cooling thereof (Figure 4, Column 1, Lines 44 – 67, Column 2, Lines 1 – 3, Column 4, Lines 60 – 67 and Column 5, Lines 1 - 5).

Ostler shown Figure 4



Regarding claim 2, Ostler discloses in Figure 4, the exterior surfaces (see Fig. 4, Characters 16, 18) of said laser source (see Fig. 4 Character 42) and

said power source (Column 4, Lines 54 – 56) includes: a substantially developed surface to facilitate transfer of heat to air; wherein the fan (see Fig. 4, Character 100) directs the air flow substantially adjacent to the developed surface of each of said laser source and said power source (see Fig. 4).

Regarding claims 3, 11 and 19, Ostler discloses in Figure 4, a cooling fins (see Fig. 4 Character 70).

Regarding claims 5, 13, and 21, Ostler discloses in Figure 4, laser source (see Fig. 4, Character 42) and said power source (Column 4, Lines 54 – 56) have generally equal cross-sectional areas in a direction perpendicular to the longitudinal axis (See Fig. 4).

Regarding claims 6, 14, and 22, Ostler discloses in Figure 1 and 4 a shroud (see Fig. 1, Character 20, see Fig. 4, Characters 16 and 18) covering said laser source and said power source, wherein said shroud includes interior walls forming a single air channel configured to direct the air flow within the shroud in a single direction from the fan along the longitudinal axis to pass substantially adjacent to the exterior surfaces of said laser source and said power source (Figure 4, Column 6, Lines 60 – 67 and Column 7, Lines 1 – 5).

Regarding claim 7, Ostler discloses in Figure 4 a laser which comprises: a laser source (see Fig. 4, Character 42) having a first end, a second end spaced apart from a first end along a longitudinal axis, a laser resonator (Column 5, Lines 48 – 49); a laser media (see Fig. 4, Character 50, reference call plasma tube); and electrodes for exciting the laser media (see Fig. 4, Characters 46, 48, 60 and 102, reference calls cathode and anode); a power source (Column 4, Lines 54 – 56, the reference said don't show the power source but use at least one power source) substantially adjacent to one the first or second ends of said laser source and adapted for causing the laser source to generate a laser beam (see Fig. 4), wherein the power source (Column 4, Lines 54 – 56, the reference said don't show the power source but use at least one power source, but in Figure 2, the reference talk about a power plug and if the apparatus have a power plug need a power source and the power source is located along a longitudinal axis) and the laser source (see Fig. 4, Character 42) are aligned along the longitudinal axis; and a cooling fan positioned substantially adjacent said power source and located in a generally straight line path with said laser source and said power source (Column 4, Lines 54 – 56, the reference said don't show the power source but use at least one power source, but in Figure 2, the reference talk about a power plug and if the apparatus have a power plug need a power source and the power source is located along a longitudinal axis), along the longitudinal axis said cooling fan adapted for generating an air flow for

cooling said laser source and said power source (Figure 4, Column 1, Lines 44 – 67, Column 2, Lines 1 – 3, Column 4, Lines 60 – 67 and Column 5, Lines 1 - 5).

Regarding claims 8, 9, 16, and 17, Ostler discloses in Figure 4, cooling fan (see Fig. 4, Character 100) generates the air flow in a direction to cool said laser source (see Fig. 4, Character 42) before cooling said power source (Column 4, Lines 54 – 56) or said cooling fan (see Fig. 4, Character 100) generates the air flow in a direction to cool said power source (Column 4, Lines 54 – 56, the reference said don't show the power source but use at least one power source, but in Figure 2, the reference talk about a power plug and if the apparatus have a power plug need a power source and the power source is located along a longitudinal axis) before cooling said laser source (see Fig. 4, Character 42) and (Column 1, Lines 44 – 67, Column 2, Lines 1 – 3, Column 4, Lines 60 – 67 and Column 5, Lines 1 - 5).

Regarding claims 10 and 18, Ostler discloses in Figure 4, laser source and said power source includes: a substantially developed surface to facilitate a transfer of heat to air on a respective exterior surface; wherein said cooling fan directs the air flow substantially adjacent to the developed surface of each of said laser source and said power source (Figure 4, Column 1, Lines 44 – 67, Column 2, Lines 1 – 3, Column 4, Lines 60 – 67 and Column 5, Lines 1 - 5).

Regarding claim 15, Ostler discloses in Figure 4 a laser, which comprises: a power (Column 4, Lines 54 – 56, the reference said don't show the power source but use at least one power source, but in Figure 2, the reference talk about a power plug and if the apparatus have a power plug need a power source and the power source is located along a longitudinal axis) for causing the laser source to generate a laser beam (see Fig. 4); and a cooling fan (see Fig. 4, Character 100) at one end of the power source (Column 5, Lines 54 – 56, the reference said don't show the power source but use at least one power source), the cooling fan being adapted for generating an air flow directed in a generally straight line path with said laser source and said power source for cooling said laser source and said power source (Figure 4, Column 1, Lines 44 – 67 and Column 2, Lines 1 – 3).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 12 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ostler (5,550,853) in view of Sukhman et al. (5,901,167).

Regarding claims 4, 12 and 20, Ostler discloses the claimed invention except for said cooling fins on said laser source are profiled in a direction along the longitudinal axis of the laser. However, it is well known in the art to apply the cooling fins on said laser source are profiled in a direction along the longitudinal axis of the laser as disclosed by Sukhman in Column 2, Lines 6 – 7 and Column 4, Lines 11 – 21. Therefore, it would have been obvious to a person having ordinary skill in the art to apply the well known cooling fins on said laser source are profiled in a direction along the longitudinal axis of the laser as suggested by Sukhman to the laser of Ostler, because it will use to cooling a device in a same chamber or housing see Column 4, Lines 11 – 21 of Sukhman.

Response to Arguments

Applicant's arguments filed on 8/16/2006 have been fully considered but they are not persuasive. Applicant argues the prior art lacks: laser having a laser source and a power arranged in an "end-to-end series relation along a longitudinal axis". The examiner disagrees with the applicant arguments since the prior art does teach laser having a laser source and a power arranged in an "end-to-end series relation along a longitudinal axis" (Column 4, Lines 54 – 56, the

reference said don't show the power source but use at least one power source, but in Figure 2, the reference talk about a power plug and if the apparatus have a power plug need a power source and the power source is located along a longitudinal axis) as stated in the rejection above.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Art Unit: 2828

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Delma R. Flores Ruiz whose telephone number is (571) 272-1940. The examiner can normally be reached on M - F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Min Sun Harvey can be reached on (571) -272-1835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Delma R. Flores Ruiz
Examiner
Art Unit 2828


Min Sun Harvey
Supervisor Patent Examiner
Art Unit 2828

DRFR/MH
November 22, 2006